

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019133**Date Inspected:** 06-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC)**Location:** Shanghai, China**CWI Name:** Li Yang and Zhu Zhong Hai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Trial Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 11BE (Handrails)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Handrail to Fiber Glass Grating between Panel Points (PP) 98 and PP 99 for Segment 11BE. Handrails are installed at FL3 extension Bottom Plate on Catwalk Structure. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00599 dated January 06, 2011.

The bolt sizes used were M16 x 95 RC Lot # DHGM160046 and the final torque value established was Snug Tight.

A spanner wrench was used to verify the snug tight condition.

Please reference the pictures attached for more comprehensive details.

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Segment 11DE (Handrails)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Handrail to Fiber Glass Grating between Panel Points (PP) 104 and PP 105 for Segment 11DE. Handrails are installed at FL3 extension Bottom Plate on Catwalk Structure. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00599 dated January 06, 2011.

The bolt sizes used were M16 x 95 RC Lot # DHGM160046 and the final torque value established was Snug Tight.

A spanner wrench was used to verify the snug tight condition.

Segment 11BW (Handrails)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Handrail to Fiber Glass Grating between Panel Points (PP) 98 and PP 99 for Segment 11BW. Handrails are installed at FL3 extension Bottom Plate on Catwalk Structure. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00599 dated January 06, 2011.

The bolt sizes used were M16 x 95 RC Lot # DHGM160046 and the final torque value established was Snug Tight.

A spanner wrench was used to verify the snug tight condition.

Segment 11DW (Handrails)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Handrail to Fiber Glass Grating between Panel Points (PP) 104 and PP 105 for Segment 11DW. Handrails are installed at FL3 extension Bottom Plate on Catwalk Structure. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00599 dated January 06, 2011.

The bolt sizes used were M16 x 95 RC Lot # DHGM160046 and the final torque value established was Snug Tight.

A spanner wrench was used to verify the snug tight condition.

Lift 11 West (X37B Road Barrier Brackets, at Corner Assembly)

This QA Inspector performed Dimension Control Inspection for the Segment 11AW, Segment 11BW, Segment 11CW, Segment 11DW and Segment 11EW after installing the Retro-fit plates and measured the distance between

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Road Barrier bolt holes drilled at X37B from deck panel to the cope hole at X37B bracket. Road Barrier X37B installed at Corner Assembly. ZPMC personnel's performed this rectification work against the Request for Information(RFI) Report # ABF-RFI-001985R01 dated August 18, 2010.

Observed Retro-fit plates are installed at East and West side of the Road Barrier Brackets X37B, at Counter Weight side at the following locations.

At Panel Point(PP) 95.75(Retro-fit plate installed at East side of X37B Bracket), Counter Weight side.

At Panel Points(PP) 97.25(Retro-fit plate installed at East side of X37B Bracket) and PP 97.75(Retro-fit plate installed at East side of X37B Bracket), Counter Weight side.

At Panel Point(PP) 100.75(Retro-fit plate installed at East side of X37B Bracket), Counter Weight side.

At Panel Point(PP) PP 101.75(Retro-fit plate installed at East side of X37B Bracket), Counter Weight side.

At Panel Points(PP) 102.25(Retro-fit plate installed at East side of X37B Bracket) and PP 102.75(Retro-fit plate installed at East side of X37B Bracket), Counter Weight side.

At Panel Points(PP) 103.25(Retro-fit plate installed at East and West side of X37B Bracket) and PP 103.75(Retro-fit plate installed at West side of X37B Bracket), Counter Weight side.

At Panel Point(PP) 104.25(Retro-fit plate installed at East side of X37B Bracket), Counter Weight side.

At Panel Point(PP) 105.25(Retro-fit plate installed at East side of X37B Bracket), Counter Weight side.

At Panel Point(PP) 106.75(Retro-fit plate installed at West side of X37B Bracket), Counter Weight side.

At Panel Point(PP) 108.75(Retro-fit plate installed at East side of X37B Bracket), Counter Weight side.

Note: Observed 14(Fourteen) locations retro-fit plates for X37B Brackets are installed in total for Lift 11 West.

The observations were informed to Lead Inspector Mr. Mark Miller and Structural Steel Material Representative (SMR) Mr. Eric Tsang for closing out the punch list.

Segment 12AW to Segment 12BW (Side Panel, Transverse Splice weld)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12D-002. The welder identification was 046709 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as the Side Panel, at transverse splice. ZPMC performed repair welding in accordance with Critical Welding Repair Report B-CWR2709 dated January 7, 2011.

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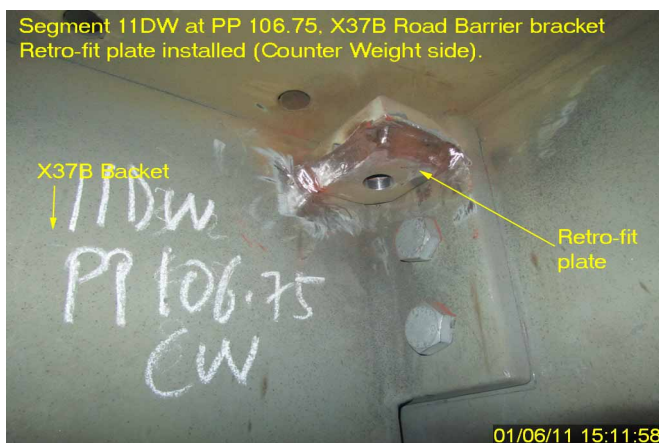
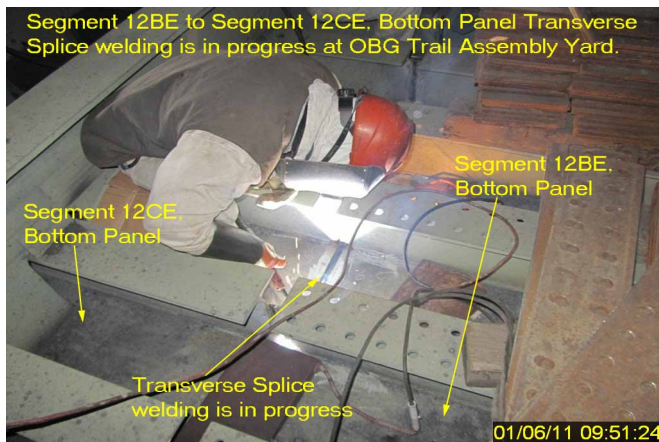
Please reference the pictures attached for more comprehensive details.

Segment 12BE to Segment 12CE (Bottom Panel, Transverse Splice weld)

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12C-001. The welder identification was 040458 and 047353 and observed welding in the 1G (Flat) position using approved Welding Procedure Specification WPS-B-T-2231T-ESAB. The piece mark was identified as the Bottom Panel, at transverse splice.

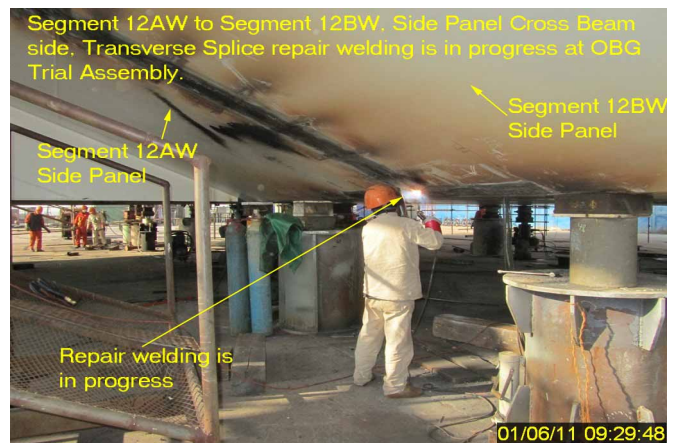
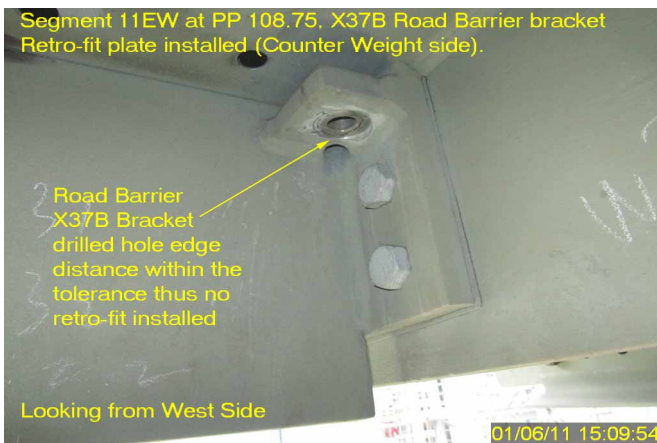
Please reference the pictures attached for more comprehensive details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



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Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150000422372, who represents the Office of Structural Materials for your project.

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| Inspected By: | Math,Manjunath | Quality Assurance Inspector |
| Reviewed By: | Dsouza,Christopher | QA Reviewer |
